

Table 107. Energy Consumption Estimates by Source, Selected Years 1960-1997, Iowa

Year	Coal ^a	Natural Gas ^b	Petroleum										Nuclear Electric Power	Hydro-electric Power ^d		Net Interstate Flow of Electricity/Losses ^g	Total ^h	
			Asphalt & Road Oil ^a	Aviation Gasoline ^a	Distillate Fuel ^a	Jet Fuel ^a	Kerosene ^a	LPG ^a	Lubricants ^a	Motor Gasoline	Residual Fuel ^a	Other ^{a,c}						
	Thousand Short Tons	Billion Cubic Feet	Thousand Barrels										Million kWh	Biomass ^e	Other ^{a,f}	Million kWh		
1960	5,257	187	2,579	366	11,163	195	2,587	5,017	713	29,463	1,071	44	53,197	0	881	-	-2,370	
1965	5,722	248	2,569	358	11,068	232	1,523	7,448	698	30,792	531	542	55,760	0	928	-	3,241	
1970	6,166	349	2,914	256	13,677	725	490	11,038	700	35,701	401	627	66,528	0	935	-	1,618	
1975	6,407	346	2,294	191	14,553	835	214	13,645	655	39,042	608	986	73,024	2,291	879	-	13,729	
1980	12,340	270	1,699	184	15,930	813	171	11,167	714	35,394	415	5,236	71,721	2,563	946	-	13,041	
1985	14,342	226	2,023	83	15,490	592	155	8,507	649	31,465	182	1,778	60,925	1,927	2,048	-	6,022	
1986	13,862	207	2,038	151	15,962	595	115	8,774	635	31,355	508	877	61,009	2,993	953	-	8,942	
1987	15,191	203	1,788	110	15,762	779	110	6,098	718	31,687	117	905	58,075	2,523	971	-	6,760	
1988	16,114	239	2,213	145	15,946	713	107	6,612	692	32,509	258	868	60,063	3,163	699	-	4,806	
1989	17,126	226	1,710	111	14,961	750	71	7,174	710	32,574	183	847	59,092	3,139	i NA	-	R 3,835	
1990	17,929	218	1,537	99	15,223	891	81	6,355	731	31,684	126	937	57,663	3,012	NA	-	R 593	
1991	18,741	233	1,563	82	14,605	892	51	7,255	654	32,471	96	676	58,346	4,147	NA	-	R -1,868	
1992	17,992	231	1,406	75	16,370	803	42	8,978	666	31,713	107	748	60,908	3,405	NA	-	R 422	
1993	19,188	248	1,354	70	16,970	720	71	15,651	679	32,703	164	756	69,139	3,235	NA	-	1,659	
1994	19,341	248	1,964	69	18,531	897	60	15,663	709	33,887	182	688	72,650	4,107	NA	-	R -525	
1995	20,636	262	1,636	72	18,879	1,046	69	16,989	697	34,418	94	640	74,540	3,730	NA	-	R -737	
1996	21,171	273	2,052	71	20,276	819	54	10,319	676	35,909	96	684	70,957	3,924	NA	-	R 898	
1997	21,719	255	2,623	78	20,553	793	63	10,424	715	35,577	73	692	71,592	4,149	NA	-	1,873	
Trillion Btu																		
1960	115.9	193.7	17.1	1.8	65.0	1.0	14.7	20.1	4.3	154.8	6.7	0.2	285.9	0.0	9.5	R 6.4	0.0	-8.1 R 603.3
1965	126.6	250.0	17.0	1.8	64.5	1.3	8.6	29.9	4.2	161.7	3.3	2.9	295.3	0.0	9.7	R 5.5	0.0	11.1 R 698.1
1970	130.9	351.8	19.3	1.3	79.7	4.1	2.8	41.7	4.2	187.5	2.5	3.3	346.4	0.0	9.8	R 6.3	0.0	5.5 R 850.7
1975	131.6	348.6	15.2	1.0	84.8	4.7	1.2	50.7	4.0	205.1	3.8	5.4	375.8	25.2	9.1	R 7.9	0.0	46.8 R 945.0
1980	234.4	270.4	11.3	0.9	92.8	4.6	1.0	41.0	4.3	185.9	2.6	28.7	373.1	28.0	9.8	R 49.7	0.0	44.5 R 1,009.9
1985	268.8	228.4	13.4	0.4	90.2	3.3	0.9	30.7	3.9	165.3	1.1	9.6	318.9	20.8	21.4	R 55.2	0.0	20.5 R 934.1
1986	262.1	209.0	13.5	0.8	93.0	3.3	0.7	31.9	3.9	164.7	3.2	4.7	319.7	32.3	10.0	R 39.3	0.0	30.5 R 902.8
1987	287.3	204.7	11.9	0.6	91.8	4.4	0.6	22.3	4.4	166.5	0.7	4.9	308.0	27.2	10.1	R 37.6	0.0	23.1 R 898.0
1988	306.1	240.8	14.7	0.7	92.9	4.0	0.6	24.1	4.2	170.8	1.6	4.7	318.3	34.0	7.2	R 39.0	0.0	16.4 R 961.8
1989	319.0	228.2	11.3	0.6	87.1	4.2	0.4	26.4	4.3	171.1	1.2	4.6	311.2	33.7	R i 7.2	R i 38.8	R i 0.1	R i 13.1 R i 947.0
1990	331.7	219.7	10.2	0.5	88.7	5.0	0.5	23.0	4.4	166.4	0.8	5.1	304.6	32.2	9.1	R 30.5	R 0.1	2.0 R 925.1
1991	346.4	235.0	10.4	0.4	85.1	5.0	0.3	26.2	4.0	170.6	0.6	3.6	306.2	44.5	9.4	R 30.6	R 0.1	-6.4 R 962.0
1992	326.7	231.9	9.3	0.4	95.4	4.5	0.2	32.5	4.0	166.6	0.7	4.0	317.7	36.4	10.3	R 32.7	R 0.1	1.4 R 952.5
1993	339.9	248.8	9.0	0.4	98.9	4.1	0.4	56.4	4.1	171.8	1.0	4.0	350.1	34.6	7.7	R 32.8	R 0.1	5.7 R 1,014.3
1994	346.9	250.3	13.0	0.3	107.9	5.1	0.3	56.9	4.3	178.0	1.1	3.7	370.8	43.9	R 11.1	R 56.7	R 0.2	-1.8 R 1,072.2
1995	368.8	263.6	10.9	0.4	110.0	5.9	0.4	61.5	4.2	180.8	0.6	3.4	378.1	39.8	10.3	R 59.1	R 0.2	-2.5 R 1,111.7
1996	380.5	274.3	13.6	0.4	118.1	4.6	0.3	37.3	4.1	188.6	0.6	3.7	371.3	41.7	9.7	R 58.8	R 0.2	3.1 R 1,135.9
1997	390.0	257.1	17.4	0.4	119.7	4.5	0.4	37.7	4.3	186.9	0.5	3.7	375.5	44.1	8.3	59.4	0.3	6.4 1,136.4

^a The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

^b Includes supplemental gaseous fuels.

^c "Other" is the subtotal of 16 petroleum products consumed in the industrial sector. See a full description in Appendix A, Section 4, "Other Petroleum Products."

^d If applicable, through 1988, includes all net imports of electricity, and, from 1989, includes only the portion of imports of electricity that is derived from hydroelectric power.

^e "Biomass" is wood, waste, and ethanol. Ethanol blended into motor gasoline is included in motor gasoline and total petroleum. It is also included in the biomass series to give complete biomass data, but it is counted only once in the energy total.

^f "Other" is geothermal, wind, photovoltaic, and solar thermal energy. See Appendix A, Section 5, for explanation of estimation methodology.

^g Net interstate flow of electricity is the difference between the amount of energy in the electricity sold within a State (including associated losses) and the energy input at the electric utilities within the State. A positive number indicates that more electricity (including associated losses) came into the State than went out of the State during the year; conversely, a negative number indicates that more electricity (including associated losses) went out of the State than came into the State.

^h From 1989, "Total" does not equal the sum of the columns. Ethanol (which is shown in the transportation sector table) is included in both motor gasoline and biomass data in this table but only once in the total. Net imports of electricity generated from nonrenewable energy sources (shown in appendix Table A8) is included in the total in this table but not in any other columns.

ⁱ There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 108. Residential Energy Consumption Estimates, Selected Years 1960-1997, Iowa

Year	Coal			Natural Gas ^b	Petroleum				Wood	Geothermal	Solar ^c	Electricity ^a	Million Kilowatthours	Net Energy	Electrical System Energy Losses ^d	
	Bituminous Coal and Lignite ^a	Anthracite ^a	Total		Distillate Fuel ^a	Kerosene ^a	LPG ^a	Total								
	Billion Cubic Feet			Thousand Barrels				Thousand Cords								
1960	319	0	319	58	2,610	2,301	3,312	8,223	R 163	—	—	3,720	—	9,253	—	
1965	171	0	171	77	2,347	1,327	4,741	8,416	R 108	—	—	5,044	—	12,042	—	
1970	62	0	62	96	2,232	325	6,826	9,383	R 99	—	—	6,480	—	15,703	—	
1975	49	0	49	94	1,802	138	6,799	8,740	R 115	—	—	8,338	—	20,112	—	
1980	32	0	32	85	2,388	47	3,890	6,325	R 619	—	—	10,038	—	24,409	—	
1985	97	1	98	79	1,435	115	2,996	4,546	R 575	—	—	9,851	—	23,144	—	
1986	89	1	89	74	1,388	75	3,267	4,730	R 560	—	—	10,008	—	23,021	—	
1987	117	1	119	65	1,218	57	2,523	3,799	R 485	—	—	10,045	—	22,952	—	
1988	130	9	138	76	1,116	78	3,073	4,266	R 504	—	—	10,677	—	24,138	—	
1989	60	2	63	77	1,065	41	3,372	4,479	R 523	—	—	10,394	—	R 23,354	—	
1990	85	1	86	71	797	24	2,742	3,563	348	—	—	10,513	—	R 22,995	—	
1991	78	(s)	78	79	887	34	3,359	4,279	366	—	—	11,159	—	R 24,292	—	
1992	22	1	23	75	779	20	3,401	4,199	R 385	—	—	10,290	—	21,980	—	
1993	23	3	26	83	821	33	3,955	4,809	R 318	—	—	11,103	—	23,459	—	
1994	13	2	15	78	973	19	3,925	4,917	R 312	—	—	11,062	—	R 23,083	—	
1995	31	0	31	82	844	25	3,964	4,832	R 346	—	—	11,640	—	R 24,249	—	
1996	78	0	78	88	785	30	4,717	5,532	R 346	—	—	11,537	—	R 24,011	—	
1997	131	0	131	82	768	28	4,717	5,513	252	—	—	11,673	—	24,243	—	
Trillion Btu																
1960	6.8	0.0	6.8	60.5	15.2	13.0	13.3	41.5	R 3.3	0.0	0.0	12.7	R 124.7	31.6	R 156.3	
1965	3.6	0.0	3.6	78.0	13.7	7.5	19.0	40.2	R 2.2	0.0	0.0	17.2	R 141.3	41.1	R 182.3	
1970	1.3	0.0	1.3	97.1	13.0	1.8	25.8	40.6	R 2.0	0.0	0.0	22.1	R 163.1	53.6	R 216.7	
1975	0.9	0.0	0.9	95.1	10.5	0.8	25.3	36.5	R 2.3	0.0	0.0	28.4	R 163.3	68.6	R 231.9	
1980	0.6	0.0	0.6	85.2	13.9	0.3	14.3	28.5	R 12.4	0.0	0.0	34.2	R 160.9	83.3	R 244.2	
1985	2.1	(s)	2.1	79.6	8.4	0.7	10.8	19.8	R 11.5	0.0	0.0	33.6	R 146.6	79.0	R 225.6	
1986	1.9	(s)	1.9	74.9	8.1	0.4	11.9	20.4	R 11.2	0.0	0.0	34.1	R 142.6	78.5	R 221.1	
1987	2.4	(s)	2.5	65.8	7.1	0.3	9.2	16.7	R 9.7	0.0	0.0	34.3	R 128.9	78.3	R 207.2	
1988	2.7	0.2	2.9	76.6	6.5	0.4	11.2	18.2	R 10.1	0.0	0.0	36.4	R 144.2	82.4	R 226.6	
1989	1.4	0.1	1.4	78.3	6.2	0.2	12.4	18.9	R 10.5	R e (s)	35.5	R e 144.5	79.7	R e 224.2		
1990	2.0	(s)	2.1	71.9	4.6	0.1	9.9	14.7	7.0	0.1	(s)	35.9	R 131.6	78.5	210.0	
1991	1.9	(s)	1.9	79.4	5.2	0.2	12.1	17.5	7.3	0.1	(s)	38.1	R 144.3	82.9	R 227.2	
1992	0.5	(s)	0.5	75.2	4.5	0.1	12.3	17.0	7.7	0.1	(s)	35.1	R 135.6	75.0	R 210.6	
1993	0.5	0.1	0.6	83.7	4.8	0.2	14.3	19.2	6.4	0.1	(s)	37.9	147.8	80.0	R 227.9	
1994	0.3	0.1	0.4	78.9	5.7	0.1	14.3	20.0	R 6.2	0.1	(s)	37.7	R 143.4	78.8	222.1	
1995	0.8	0.0	0.8	82.6	4.9	0.1	14.4	19.4	R 6.9	0.1	(s)	39.7	R 149.6	82.7	R 232.3	
1996	1.9	0.0	1.9	88.6	4.6	0.2	17.0	21.8	6.9	0.1	(s)	39.4	R 158.7	81.9	R 240.6	
1997	3.1	0.0	3.1	82.4	4.5	0.2	17.1	21.7	5.0	0.1	(s)	39.8	152.2	82.7	234.9	

^a The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

^b Includes supplemental gaseous fuels.

^c Includes small amounts of solar energy consumed by the commercial sector that cannot be separately identified. See Appendix A, Section 5, for explanation of estimation methodology.

^d Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

^e There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of

non-electric utility use of renewable energy beginning in 1989.

R=Revised data.

—=Not applicable.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 109. Commercial Energy Consumption Estimates, Selected Years 1960-1997, Iowa

Year	Coal			Natural Gas ^b	Petroleum						Wood	Electricity ^a	Electrical System Energy Losses ^c			
	Bituminous Coal and Lignite ^a	Anthracite ^a	Total		Distillate Fuel ^a	Kerosene ^a	LPG ^a	Motor Gasoline	Residual Fuel ^a	Total						
	Thousand Short Tons			Billion Cubic Feet	Thousand Barrels						Thousand Cords	Geothermal	Million Kilowatthours	Net Energy	Million Kilowatthours	Total ^d
1960	592	0	592	28	1,046	94	584	178	232	2,135	R 3	—	1,812	—	4,506	—
1965	318	0	318	39	941	54	837	194	135	2,161	R 2	—	2,797	—	6,679	—
1970	116	0	116	57	895	13	1,205	271	65	2,449	R 2	—	3,655	—	8,857	—
1975	90	0	90	67	722	6	1,200	323	115	2,366	R 2	—	5,121	—	12,353	—
1980	59	0	59	51	751	5	686	350	79	1,871	R 15	—	5,502	—	13,379	—
1985	179	1	180	48	1,124	7	529	237	1	1,898	NA	—	6,306	—	14,816	—
1986	165	(s)	165	44	681	2	577	273	39	1,571	NA	—	6,551	—	15,068	—
1987	218	1	219	38	759	6	445	266	18	1,494	NA	—	6,717	—	15,347	—
1988	241	6	247	45	685	5	542	339	20	1,591	NA	—	7,136	—	16,133	—
1989	112	2	113	46	490	6	595	233	33	1,357	NA	—	7,301	—	R 16,404	—
1990	158	1	159	44	495	38	484	142	31	1,190	NA	—	7,532	—	R 16,474	—
1991	145	(s)	145	47	563	3	593	727	9	1,895	NA	—	7,938	—	R 17,280	—
1992	40	1	41	46	488	4	600	645	37	1,775	NA	—	7,783	—	16,625	—
1993	42	2	44	50	356	7	698	637	5	1,703	R 26	—	8,536	—	18,034	—
1994	24	1	25	48	391	13	693	35	1	1,132	R 26	—	8,753	—	R 18,266	—
1995	58	0	58	50	449	3	700	35	0	1,186	R 26	—	8,890	—	R 18,521	—
1996	144	0	144	55	361	4	832	244	1	1,442	R 28	—	8,673	—	R 18,051	—
1997	243	0	243	50	339	8	832	445	0	1,625	24	—	8,944	—	18,574	—
Trillion Btu																
1960	12.6	0.0	12.6	28.8	6.1	0.5	2.3	0.9	1.5	11.4	R 0.1	0.0	6.2	R 59.1	15.4	74.4
1965	6.7	0.0	6.7	39.1	5.5	0.3	3.4	1.0	0.9	11.0	(s)	0.0	9.5	66.4	22.8	89.2
1970	2.4	0.0	2.4	57.8	5.2	0.1	4.6	1.4	0.4	11.7	(s)	0.0	12.5	84.3	30.2	114.5
1975	1.6	0.0	1.6	67.5	4.2	(s)	4.5	1.7	0.7	11.1	(s)	0.0	17.5	97.7	42.1	R 139.9
1980	1.2	0.0	1.2	50.7	4.4	(s)	2.5	1.8	0.5	9.3	R 0.3	0.0	18.8	R 80.2	45.6	R 125.9
1985	3.8	(s)	3.9	48.2	6.5	(s)	1.9	1.2	(s)	9.7	NA	0.0	21.5	83.3	50.6	133.8
1986	3.5	(s)	3.5	44.1	4.0	(s)	2.1	1.4	0.2	7.8	NA	0.0	22.4	77.7	51.4	129.2
1987	4.5	(s)	4.5	38.4	4.4	(s)	1.6	1.4	0.1	7.6	NA	0.0	22.9	73.4	52.4	125.8
1988	4.9	0.2	5.1	45.3	4.0	(s)	2.0	1.8	0.1	7.9	NA	0.0	24.3	82.6	55.0	137.6
1989	2.5	(s)	2.6	46.7	2.9	(s)	2.2	1.2	0.2	6.5	NA	0.0	24.9	80.7	56.0	136.6
1990	3.8	(s)	3.8	44.3	2.9	0.2	1.8	0.7	0.2	5.8	NA	0.0	25.7	79.6	56.2	135.8
1991	3.5	(s)	3.5	47.0	3.3	(s)	2.1	3.8	0.1	9.3	NA	0.0	27.1	86.9	59.0	145.8
1992	0.9	(s)	1.0	46.3	2.8	(s)	2.2	3.4	0.2	8.7	NA	0.0	26.6	82.5	56.7	139.2
1993	1.0	0.1	1.0	50.5	2.1	(s)	2.5	3.3	(s)	8.0	R 0.5	0.0	29.1	R 89.2	61.5	R 150.7
1994	0.6	(s)	0.6	48.3	2.3	0.1	2.5	0.2	(s)	5.1	R 0.5	0.1	29.9	R 84.4	62.3	R 146.8
1995	1.4	0.0	1.4	50.6	2.6	(s)	2.5	0.2	0.0	5.3	R 0.5	0.1	30.3	R 88.3	63.2	R 151.5
1996	3.5	0.0	3.5	54.9	2.1	(s)	3.0	1.3	(s)	6.4	R 0.6	0.1	29.6	R 95.2	61.6	R 156.8
1997	5.7	0.0	5.7	50.6	2.0	(s)	3.0	2.3	0.0	7.4	0.5	0.2	30.5	94.9	63.4	158.3

^a The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

^b Includes supplemental gaseous fuels.

^c Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

^d Small amounts of solar energy consumed in the commercial sector cannot be separately identified and are included in residential consumption.

R=Revised data.

—=Not applicable. NA=Not available.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 110. Industrial Energy Consumption Estimates, Selected Years 1960-1997, Iowa

Year	Coal	Natural Gas ^a	Petroleum										Hydro-electric Power ^b	Wood and Waste	Other ^{b,d}	Electricity ^b	Electrical System Energy Losses ^e	
			Asphalt and Road Oil ^b	Distillate Fuel ^b	Kerosene ^b	LPG ^b	Lubricants ^b	Motor Gasoline	Residual Fuel ^b	Other ^{b,c}	Total	Million kWh	Million kWh	Net Energy	Million kWh	Million kWh		
	Thousand Short Tons	Billion Cubic Feet	Thousand Barrels										Other ^{b,d}	Million kWh	Net Energy	Million kWh	Million kWh	
1960	2,193	43	2,579	5,536	192	1,098	196	5,797	573	44	16,016	2	—	—	2,676	—	6,657	—
1965	2,464	68	2,569	5,607	142	1,815	218	5,373	354	542	16,620	2	—	—	3,719	—	8,879	—
1970	1,955	99	2,914	5,884	152	2,949	220	5,391	261	627	18,398	1	—	—	5,338	—	12,936	—
1975	1,333	121	2,294	4,670	70	5,593	155	3,791	279	986	17,838	1	—	—	6,626	—	15,984	—
1980	1,505	115	1,699	4,698	119	6,557	192	2,612	273	5,236	21,385	1	—	—	9,318	—	22,658	—
1985	1,572	87	2,023	4,788	33	4,893	175	1,703	179	1,778	15,571	1	—	—	9,520	—	22,367	—
1986	1,563	80	2,038	5,849	39	4,789	171	1,508	469	877	15,739	1	—	—	9,797	—	22,535	—
1987	1,857	88	1,788	4,957	47	3,082	193	1,490	92	905	12,553	1	—	—	10,264	—	23,453	—
1988	1,808	102	2,213	5,136	24	2,951	186	1,407	238	868	13,024	1	—	—	11,025	—	24,924	—
1989	2,351	89	1,710	4,110	24	3,156	191	1,304	150	847	11,492	f NA	—	—	11,017	—	R 24,753	—
1990	2,353	90	1,537	4,137	19	3,087	196	1,072	95	937	11,080	NA	—	—	11,392	—	R 24,918	—
1991	2,672	97	1,563	4,604	15	3,255	176	1,160	87	676	11,536	NA	—	—	11,684	—	R 25,435	—
1992	2,571	101	1,406	6,221	18	4,932	179	1,052	70	748	14,625	NA	—	—	12,134	—	R 25,919	—
1993	2,494	103	1,354	6,150	31	10,944	182	799	160	756	20,378	NA	—	—	12,465	—	26,336	—
1994	2,735	109	1,964	6,680	28	10,894	191	1,108	181	688	21,734	NA	—	—	13,224	—	R 27,595	—
1995	2,761	115	1,636	6,091	41	12,267	187	1,038	94	640	21,994	NA	—	—	13,771	—	R 28,689	—
1996	3,085	114	2,052	6,334	20	4,678	182	1,105	95	684	15,149	NA	—	—	14,789	—	R 30,779	—
1997	3,151	107	2,623	6,859	27	4,790	192	1,092	73	692	16,349	NA	—	—	15,531	—	32,254	—
Trillion Btu																		
1960	51.7	44.9	17.1	32.2	1.1	4.4	1.2	30.5	3.6	0.2	90.3	(s)	R 2.8	0.0	9.1	R 198.8	22.7	R 221.6
1965	57.5	68.9	17.0	32.7	0.8	7.3	1.3	28.2	2.2	2.9	92.4	(s)	R 2.9	0.0	12.7	R 234.5	30.3	R 264.8
1970	43.0	99.9	19.3	34.3	0.9	11.1	1.3	28.3	1.6	3.3	100.2	(s)	R 3.9	0.0	18.2	R 265.1	44.1	R 309.3
1975	28.4	122.5	15.2	27.2	0.4	20.8	0.9	19.9	1.8	5.4	91.6	(s)	R 5.1	0.0	22.6	R 270.2	54.5	R 324.7
1980	32.4	114.9	11.3	27.4	0.7	24.1	1.2	13.7	1.7	28.7	108.7	(s)	R 36.8	0.0	31.8	R 324.5	77.3	R 401.8
1985	35.6	88.0	13.4	27.9	0.2	17.6	1.1	8.9	1.1	9.6	79.9	(s)	R 43.1	0.0	32.5	R 279.0	76.3	R 355.3
1986	35.5	81.2	13.5	34.1	0.2	17.4	1.0	7.9	3.0	4.7	81.9	(s)	R 27.3	0.0	33.4	R 259.3	76.9	R 336.2
1987	42.5	89.1	11.9	28.9	0.3	11.3	1.2	7.8	0.6	4.9	66.7	(s)	R 27.2	0.0	35.0	R 260.5	80.0	R 340.5
1988	41.7	102.7	14.7	29.9	0.1	10.8	1.1	7.4	1.5	4.7	70.2	(s)	R 28.3	0.0	37.6	R 280.6	85.0	R 365.6
1989	54.0	90.3	11.3	23.9	0.1	11.6	1.2	6.9	0.9	4.6	60.6	R f 0.2	R f 23.9	f 0.0	37.6	R f 266.5	R 84.5	R f 351.0
1990	53.1	90.9	10.2	24.1	0.1	11.2	1.2	5.6	0.6	5.1	58.1	0.2	R 18.6	0.0	38.9	R 259.7	85.0	R 344.7
1991	59.3	98.2	10.4	26.8	0.1	11.8	1.1	6.1	0.5	3.6	60.4	0.2	R 19.2	0.0	39.9	R 277.2	86.8	R 363.9
1992	52.9	101.2	9.3	36.2	0.1	17.9	1.1	5.5	0.4	4.0	74.6	0.2	R 20.2	0.0	41.4	R 290.4	88.4	R 378.8
1993	50.3	102.9	9.0	35.8	0.2	39.5	1.1	4.2	1.0	4.0	94.8	0.1	R 20.5	0.0	42.5	R 311.2	89.9	R 401.0
1994	55.0	109.6	13.0	38.9	0.2	39.6	1.2	5.8	1.1	3.7	103.5	0.2	R 43.8	0.0	45.1	R 357.2	R 94.2	R 451.3
1995	57.9	115.7	10.9	35.5	0.2	44.4	1.1	5.5	0.6	3.4	101.6	0.1	R 45.8	0.0	47.0	R 368.1	97.9	R 466.0
1996	65.7	114.7	13.6	36.9	0.1	16.9	1.1	5.8	0.6	3.7	78.7	0.2	R 47.5	0.0	50.5	R 357.2	105.0	R 462.2
1997	66.0	108.4	17.4	40.0	0.2	17.3	1.2	5.7	0.5	3.7	85.9	0.1	49.0	0.0	53.0	362.5	110.1	472.5

^a Includes supplemental gaseous fuels.^b The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.^c "Other" is the subtotal of 16 petroleum products. See a full description in Appendix A, Section 4, "Other Petroleum Products."^d "Other" is geothermal, wind, photovoltaic, and solar thermal energy. See Appendix A, Section 5, for explanation of estimation methodology.^e Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.^f There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

R=Revised data.

kWh=kilowatthours. —=Not applicable. NA=Not available.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 111. Transportation Energy Consumption Estimates, Selected Years 1960-1997, Iowa

Year	Coal ^a	Natural Gas ^b	Petroleum									Ethanol ^c	Electricity ^a	Electrical System Energy Losses ^d	Total ^c	
			Aviation Gasoline ^a	Distillate Fuel ^a	Jet Fuel ^a	LPG ^a	Lubricants ^a	Motor Gasoline	Residual Fuel ^a	Total						
	Thousand Short Tons	Billion Cubic Feet	Thousand Barrels								Thousand Gallons	Million Kilowatthours	Net Energy	Million Kilowatthours		
1960	36	9	366	1,711	195	23	516	23,488	227	26,526	0	0	—	0	—	—
1965	8	11	358	1,991	232	55	480	25,224	15	28,354	0	0	—	0	—	—
1970	3	18	256	4,339	725	58	480	30,039	26	35,923	0	0	—	0	—	—
1975	(s)	16	191	6,851	835	53	501	34,929	0	43,359	0	0	—	0	—	—
1980	0	13	184	7,924	813	34	522	32,432	0	41,909	0	0	—	0	—	—
1985	0	10	83	8,042	592	90	475	29,525	0	38,807	0	0	—	0	—	—
1986	0	7	151	7,940	595	141	464	29,574	0	38,865	0	0	—	0	—	—
1987	0	8	110	8,713	779	48	525	29,932	8	40,114	0	0	—	0	—	—
1988	0	11	145	8,886	713	46	506	30,763	0	41,059	0	0	—	0	—	—
1989	0	10	111	9,184	750	51	519	31,036	(s)	41,652	R e 54,642	0	—	0	—	—
1990	0	9	99	9,671	891	42	534	30,470	(s)	41,708	63,107	0	—	0	—	—
1991	0	7	82	8,442	892	49	478	30,584	0	40,528	50,024	0	—	0	—	—
1992	0	7	75	8,792	803	46	487	30,016	0	40,219	60,799	0	—	0	—	—
1993	0	7	70	9,521	720	54	496	31,266	0	42,128	67,850	0	—	0	—	—
1994	0	11	69	10,305	897	151	519	32,744	0	44,684	77,134	0	—	0	—	—
1995	0	11	72	11,349	1,046	58	510	33,345	0	46,380	74,525	0	—	0	—	—
1996	0	13	71	12,662	819	92	495	34,561	0	48,700	47,761	0	—	0	—	—
1997	0	11	78	12,377	793	84	522	34,040	0	47,894	60,091	0	—	0	—	—
Trillion Btu																
1960	0.9	9.2	1.8	10.0	1.0	0.1	3.1	123.4	1.4	140.9	0.0	0.0	151.0	0.0	151.0	—
1965	0.2	11.2	1.8	11.6	1.3	0.2	2.9	132.5	0.1	150.4	0.0	0.0	161.7	0.0	161.7	—
1970	0.1	18.5	1.3	25.3	4.1	0.2	2.9	157.8	0.2	191.7	0.0	0.0	210.2	0.0	210.2	—
1975	(s)	16.2	1.0	39.9	4.7	0.2	3.0	183.5	0.0	232.3	0.0	0.0	248.5	0.0	248.5	—
1980	0.0	12.7	0.9	46.2	4.6	0.1	3.2	170.4	0.0	225.3	0.0	0.0	238.0	0.0	238.0	—
1985	0.0	10.5	0.4	46.8	3.3	0.3	2.9	155.1	0.0	208.9	0.0	0.0	219.3	0.0	219.3	—
1986	0.0	7.3	0.8	46.2	3.3	0.5	2.8	155.4	0.0	209.0	0.0	0.0	216.4	0.0	216.4	—
1987	0.0	8.2	0.6	50.8	4.4	0.2	3.2	157.2	0.1	216.3	0.0	0.0	224.5	0.0	224.5	—
1988	0.0	10.7	0.7	51.8	4.0	0.2	3.1	161.6	0.0	221.3	R e 0.0	0.0	232.0	0.0	232.0	—
1989	0.0	10.6	0.6	53.5	4.2	0.2	3.1	163.0	(s)	224.6	R e 4.2	0.0	235.2	0.0	235.2	—
1990	0.0	9.2	0.5	56.3	5.0	0.2	3.2	160.1	(s)	225.3	4.8	0.0	234.5	0.0	234.5	—
1991	0.0	6.7	0.4	49.2	5.0	0.2	2.9	160.7	0.0	218.3	3.8	0.0	225.0	0.0	225.0	—
1992	0.0	7.0	0.4	51.2	4.5	0.2	3.0	157.7	0.0	216.9	4.6	0.0	223.9	0.0	223.9	—
1993	0.0	7.4	0.4	55.5	4.1	0.2	3.0	164.2	0.0	227.3	5.2	0.0	234.7	0.0	234.7	—
1994	0.0	10.8	0.3	60.0	5.1	0.5	3.1	172.0	0.0	241.1	5.9	0.0	251.9	0.0	251.9	—
1995	0.0	11.1	0.4	66.1	5.9	0.2	3.1	175.2	0.0	250.9	5.7	0.0	262.0	0.0	262.0	—
1996	0.0	12.7	0.4	73.8	4.6	0.3	3.0	181.5	0.0	263.6	3.6	0.0	276.4	0.0	276.4	—
1997	0.0	11.4	0.4	72.1	4.5	0.3	3.2	178.8	0.0	259.3	4.6	0.0	270.7	0.0	270.7	—

^a The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

^b Includes supplemental gaseous fuels. Transportation use of natural gas is gas consumed in the operation of pipelines, primarily in compressors, and, since 1990, is also gas consumed as vehicle fuel.

^c Ethanol blended into motor gasoline, which is accounted for under motor gasoline, is shown separately here to display the use of renewable energy by the transportation sector and is included only once in the total.

^d Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

^e There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

R=Revised data.

—=Not applicable.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 112. Estimates of Energy Input at Electric Utilities, Selected Years 1960-1997, Iowa

Year	Coal			Natural Gas ^a	Petroleum				Nuclear Electric Power	Hydroelectric Power ^e	Wood and Waste	Geothermal Energy	Other ^{b,f}	Total ^g
	Bituminous Coal and Lignite	Anthracite	Total		Heavy Oil ^{b,c}	Light Oil ^{b,d}	Petroleum Coke ^b	Total						
	Billion Cubic Feet			Thousand Barrels				Million Kilowatthours						
Year	Thousand Short Tons													
1960	2,118	0	2,118	49	39	259	0	298	0	879	25	0	0	—
1965	2,760	0	2,760	52	27	183	0	210	0	926	30	0	0	—
1970	4,030	0	4,030	78	49	327	0	375	0	934	38	0	0	—
1975	4,936	0	4,936	47	214	507	0	722	2,291	877	40	0	0	—
1980	10,745	0	10,745	7	63	168	0	231	2,563	945	29	0	0	—
1985	12,491	0	12,491	2	2	101	0	103	1,927	2,047	60	0	0	—
1986	12,044	0	12,044	1	0	105	0	105	2,993	952	70	0	0	—
1987	12,997	0	12,997	3	0	115	0	115	2,523	970	67	0	0	—
1988	13,921	0	13,921	5	0	123	0	123	3,163	698	57	0	0	—
1989	14,598	0	14,598	2	0	112	0	112	3,139	672	24	0	0	—
1990	15,331	0	15,331	3	0	123	0	123	3,012	857	17	0	0	—
1991	15,846	0	15,846	4	0	109	0	109	4,147	883	20	0	0	—
1992	15,357	0	15,357	2	0	90	0	90	3,405	981	14	0	0	—
1993	16,623	0	16,623	4	0	122	0	122	3,235	737	20	0	0	—
1994	16,565	0	16,565	3	0	183	0	183	4,107	1,053	28	0	(s)	—
1995	17,785	0	17,785	4	0	148	0	148	3,730	991	20	0	(s)	—
1996	17,864	0	17,864	3	0	134	0	134	3,924	918	23	0	(s)	—
1997	18,194	0	18,194	4	0	211	0	211	4,149	795	22	0	(s)	—
Trillion Btu														
1960	44.0	0.0	44.0	50.3	0.2	1.5	0.0	1.8	0.0	9.5	0.3	0.0	0.0	105.8
1965	58.6	0.0	58.6	52.8	0.2	1.1	0.0	1.2	0.0	9.7	0.3	0.0	0.0	122.6
1970	84.2	0.0	84.2	78.6	0.3	1.9	0.0	2.2	0.0	9.8	0.4	0.0	0.0	175.2
1975	100.6	0.0	100.6	47.3	1.3	3.0	0.0	4.3	25.2	9.1	0.4	0.0	0.0	187.0
1980	200.2	0.0	200.2	6.9	0.4	1.0	0.0	1.4	28.0	9.8	0.3	0.0	0.0	246.6
1985	227.3	0.0	227.3	2.1	(s)	0.6	0.0	0.6	20.8	21.4	0.6	0.0	0.0	272.9
1986	221.3	0.0	221.3	1.4	0.0	0.6	0.0	0.6	32.3	9.9	0.7	0.0	0.0	266.3
1987	237.9	0.0	237.9	3.3	0.0	0.7	0.0	0.7	27.2	10.1	0.7	0.0	0.0	279.8
1988	256.5	0.0	256.5	5.5	0.0	0.7	0.0	0.7	34.0	7.2	0.6	0.0	0.0	304.4
1989	261.0	0.0	261.0	2.4	0.0	0.7	0.0	0.7	33.7	7.0	0.2	0.0	0.0	305.0
1990	272.6	0.0	272.6	3.5	0.0	0.7	0.0	0.7	32.2	8.9	0.2	0.0	0.0	318.1
1991	281.8	0.0	281.8	3.7	0.0	0.6	0.0	0.6	44.5	9.2	0.2	0.0	0.0	340.0
1992	272.3	0.0	272.3	2.3	0.0	0.5	0.0	0.5	36.4	10.1	0.1	0.0	0.0	321.8
1993	287.9	0.0	287.9	4.3	0.0	0.7	0.0	0.7	34.6	7.6	0.2	0.0	0.0	335.3
1994	291.0	0.0	291.0	2.7	0.0	1.1	0.0	1.1	43.9	10.9	0.3	0.0	(s)	R 349.8
1995	308.7	0.0	308.7	3.6	0.0	0.9	0.0	0.9	39.8	10.2	0.2	0.0	(s)	363.4
1996	309.3	0.0	309.3	3.4	0.0	0.8	0.0	0.8	41.7	9.5	0.2	0.0	(s)	364.9
1997	315.2	0.0	315.2	4.1	0.0	1.2	0.0	1.2	44.1	8.2	0.2	0.0	(s)	373.1

^a Includes supplemental gaseous fuels.^b The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.^c Prior to 1980, based on oil used in steam plants. Since 1980, heavy oil includes fuel oil nos. 4, 5, and 6 and residual fuel oils.^d Prior to 1980, based on oil used in internal combustion and gas turbine engine plants. Since 1980, light oil includes fuel oil nos. 1 and 2, kerosene, and jet fuel.^e If applicable, through 1989, includes all net imports of electricity, and, from 1990, includes only the portion of imports of electricity that is derived from hydroelectric power.^f "Other" is electricity generated for distribution from wind, photovoltaic, and solar thermal energy.^g If applicable, from 1990, includes net imports of electricity generated from nonrenewable energy sources not shown in other columns. See data in appendix Table A8.

R=Revised data.

—=Not applicable.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.